

## **AMENDMENTS TO THE CLAIMS**

The following listing of claims will replace all prior versions and listings of claims in the application.

### **LISTING OF CLAIMS**

1. (Original) A dishwasher comprising:  
  
a heating element having a resistance adapted to change in response to the water temperature in the dishwasher; and  
  
a data processing unit coupled to the heating element operative to measure the resistance of the heating element and determine the water temperature in the dishwasher using the resistance measurement.
  
2. (Original) The dishwasher of claim 1, further comprising a control panel for providing a plurality of wash cycles.
  
3. (Original) The dishwasher of claim 2, wherein the selection of at least one of the plurality of wash cycles sets a target resistance for the heating element and a desired water temperature for the dishwasher.
  
4. (Original) The dishwasher of claim 3, wherein the target resistance corresponds to the desired water temperature for the selected wash cycle and is selected from a plurality of pre-stored data including a plurality of target resistances that correspond to a plurality of water temperatures.

5. (Original) The dishwasher of claim 3, wherein the data processing unit is operative to control the heating element to reach the target resistance.

6. (Original) The dishwasher of Claim 3, wherein the data processing unit is operative to calculate a period of time for energizing the heating element to reach the target resistance.

7. (Original) The dishwasher of Claim 6, further comprising a timer in connection with the data processing unit for energizing the heating element for the calculated period of time.

8. (Original) The dishwasher of Claim 1, further comprising a water valve coupled to a water supply for providing water to the dishwasher.

9. (Original) The dishwasher of Claim 8, wherein the data processing unit is operative to control the water valve to open and close.

10. (Original) The dishwasher of Claim 1, wherein the heating element has a positive temperature coefficient characteristic.

11. (Original) A dishwasher comprising:

- a heating element operative to change in resistance in response to the water temperature in the dishwasher;
- a processing system coupled to the heating element, the system is operative to measure the resistance of the heating element and determine the water temperature in the dishwasher using the resistance measurement;
- a control panel coupled to the processing system, the control panel is operative to set a target resistance and a desired water temperature;
- a water supply operative to provide water to the dishwasher;
- a valve device coupled to the water supply, the valve device is operative to open and close the supply of water flowing in the dishwasher from the water supply; and
- a timer coupled to the processing system, the timer is operative to control the function of the heating element.

12. (Original) The dishwasher of claim 11, wherein the control panel includes a plurality of wash cycles where the selection of at least one of the plurality of wash cycles sets the target resistance and the desired water temperature.

13. (Original) The dishwasher of claim 11, wherein the processing system along with the timer is operative to calculate a length of time for energizing the heating element to reach the target resistance and the desired water temperature.

14. (Original) The dishwasher of claim 11, wherein the target resistance corresponds to the desired water temperature.

15. (Original) The dishwasher of claim 11, wherein the resistance of the heating element corresponds to the water temperature in the dishwasher.

16. (Original) The dishwasher of claim 11, wherein the heating element has a positive temperature coefficient characteristic.

17-29. (Canceled)